Claims

1. A method, comprising:

establishing a phase noise model of a spectrum analyzer at a series of operating states;

forming an array from the phase noise model based on a designated operating state of the spectrum analyzer; and

applying the array to a measurement trace acquired by the spectrum analyzer at the designated operating state to extract an output signal.

2. The method of claim 1 wherein establishing the phase noise model includes applying a series of calibration signals to the spectrum analyzer, designating a corresponding operating state of the spectrum analyzer for measuring each of the calibration signals in the series, and isolating the phase noise of the spectrum analyzer from the measured calibration signals.

3. The method of claim 1 wherein applying the array includes convolving the array with the measurement trace, and subtracting from the measurement trace the result of the convolving of the array with the measurement trace.

4. The method of claim 2 wherein applying the array includes convolving the array with a measurement trace, and subtracting from the measurement trace the result of the convolving of the array with the measurement trace.

5. The method of claim 1 wherein forming the array includes establishing a set of values from the phase noise model according to a frequency span of the measurement trace, and a number of measurement points in the measurement trace.

6. The method of claim 2 wherein forming the array includes establishing a set of values from the phase noise model according to a frequency span of the measurement trace, and a number of measurement points in the measurement trace.

7. The method of claim 3 wherein forming the array includes establishing a set of values from the phase noise model according to a frequency span of the measurement trace, and a number of measurement points in the measurement trace.

8. The method of claim 1 wherein the series of operating states of the spectrum analyzer and the designated operating state are designated by a parameter set including a sampler intermediate frequency, a sampler intermediate frequency polarity, a sampler harmonic number and a phase lock loop divide ratio.

9. The method of claim 1 wherein the phase noise model includes a set of functions of a parameter set that designates the series of operating states of the spectrum analyzer and the designated operating state.

10. The method of claim 8 wherein the model includes a set of functions of the parameter set.

11. A system, comprising:

a computational unit receiving a set of parameters and forming an array from a phase noise model of the spectrum analyzer at a series of operating states that is dependent on a parameter set; and

a signal processor receiving a measurement trace acquired by the spectrum analyzer at a designated operating state and applying the array to the measurement trace to extract an output signal.

12. The system of claim 11 wherein the phase noise model depends on the parameter set and a calibration set.

13. The system of claim 11 wherein the parameter set includes a sampler intermediate frequency, a sampler intermediate frequency polarity, a sampler harmonic number and a phase lock loop divide ratio.

14. The system of claim 12 wherein the calibration set is based applying a series of calibration signals to the spectrum analyzer, designating a corresponding operating state of the spectrum analyzer for measuring each of the calibration signals in the series of calibration signals, and isolating the phase noise of the spectrum analyzer from corresponding measurements of the calibration signals.

15. The system of claim 13 wherein the calibration set is based applying a series of calibration signals to the spectrum analyzer, designating a corresponding operating state of the spectrum analyzer for measuring each of the calibration signals in the series of calibration signals, and isolating the phase noise of the spectrum analyzer from corresponding measurements of the calibration signals.

16. The system of claim 11 wherein the signal processor convolves the array with the measurement trace, and subtracts from the measurement trace the result of the convolution of the array with the measurement trace.

17. The system of claim 12 wherein the signal processor convolves the array with the measurement trace, and subtracts from the measurement trace the result of the convolution of the array with the measurement trace.

18. The system of claim 13 wherein the signal processor convolves the array with the measurement trace, and subtracts from the measurement trace the result of the convolution of the array with the measurement trace.

19. The system of claim 14 wherein forming the array includes establishing a set of values from the phase noise model according to a frequency span of the measurement trace, and a number of measurement points in the measurement trace.

20. The system of claim 15 wherein forming the array includes establishing a set of values from the phase noise model determined according to a frequency span of the measurement trace, and a number of measurement points in the measurement trace.

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